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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the United States International Preliminary Examination Authority
for the Patent Cooperation Treaty (PCT/IPEA/US)
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Applicants: Unisys Corporation, et al.

International Application No.: PCT/US04/08496

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Title: REMOTE DISCOVERY AND SYSTEM
ARCHITECTURE

Mail Stop PCT
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Attn: Examiner Bunjob Jaroenchonwanit

AMENDMENT UNDER ARTICLE 34
IN RESPONSE TO A WRITTEN OPINION

Dear Examiner Jaroenchonwanit:

Applicants respectfully submit the present Amendment Under Article 34 in response to the International Search Report Written Opinion (ISR/WO) mailed March 28, 2005. Applicants filed a Demand for Preliminary Examination for this application with the U.S. Receiving Office of the PCT prior to the issuance of the ISR/WO on October 12, 2004.

Applicants respectfully disagree with the categorization of the references cited in the search report. In particular, Applicants disagree that the references are category "X" and "Y" as indicated in the Written Opinion.

Entry of these claim amendments is respectfully requested. Claims 1 and 16 have been amended. No claims have been added or canceled. Therefore, claims 1-27 remain pending in the present application.

An edited version of the originally submitted claims is attached and shows the changes that have been made to the claims. Support for the amendments is found throughout the specification as originally filed. No new matter has been added. Sheets

numbered 31 to 33 are enclosed to replace originally submitted sheets 31 to 33 of the claims.

According to the Written Opinion, claims 1-9 and 16-21 are considered to lack novelty in view of three references: Hofmann et al. (US Patent No. 6,236,983 B1), referred to as "Hofmann" hereinafter; Hodges et al. (US Patent No. 6,269,456 B1), referred to as "Hodges" hereinafter; and Caswell et al. (US Patent No. 6,336,138 B1), referred to as "Caswell" hereinafter. Also, claims 10-15 and 22-26 are not considered inventive over Hofmann.

In the Written Opinion, certain of the independent claims were considered to lack novelty in view of Hofmann, Hodges, and Caswell. Claim 1 requires sending a discovery agent over a network connection to at least one computing device and receiving a first data set from said discovery agent indicative of characteristics of the at least one computing device. Additionally, claim 1 further requires displaying at least one differences between the first data set and a second data set for consolidating computing devices. In contrast, neither Hofmann, Hodges, nor Caswell discloses *displaying* at least one *difference between the first data set and a second data set*. Thus, Hofmann, Hodges, and Caswell fail to disclose the combination of elements as claimed in claim 1.
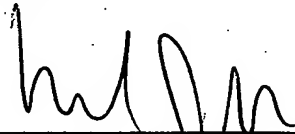
Claim 16 requires sending a discovery agent to the first computing device to determine a plurality of services provided by the first computing device and receiving a first set of information indicative of the plurality of services provided by the first computing devices. Moreover, claim 16 further requires comparing the first set of information to a second set of information indicative of a plurality of services performed by a second computing device to determine at least one service provided by the first computing device that is not available on the second computing device for consolidating services. In contrast, neither Hofmann, Hodges, nor Caswell discloses *comparing* the first set of information to a second set of information indicative of a plurality of services performed by a second computing device *to determine at least one service provided by the first computing device that is not available on the second computing device*. Thus, Hofmann, Hodges, and Caswell fail to disclose the combination of elements as claimed in claim 16.

Applicants have also amended independent claim 1 to make explicit that which already was implicit, namely, that displaying at least one difference between the first data set and a second data set is used to identify consolidation computing device candidates.

Similarly, Applicants have also amended independent claim 16 to make explicit that which already was implicit, namely, that comparing the first set of information to a second set of information to determine at least one service provided by the first computing device not available on the second computing device such that the at least one service is indicative of a service to be added to the second computing device in a consolidation.

Applicants' undersigned attorney has reviewed the patents cited in the Written Opinion as "X" and "Y" references, and cannot find any teaching or suggestion of the present invention in any of these references. Accordingly, the instant remarks are respectfully submitted to note for the record that we are of the opinion that these references have been incorrectly categorized.

Respectfully submitted,

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Date: June 28, 2005

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What is Claimed is:

1.   A method for consolidating computing devices, comprising:

sending a discovery agent over a network connection to at least one computing device;

receiving a first data set from said discovery agent indicative of characteristics of the at least one computing device; and

displaying at least one difference ~~differences~~ between the first data set and a second data set whereby a computing device consolidation candidate can be identified.

2.   The method as recited in claim 1 wherein the second data set is from a computing device other than the computing device that was the source of the first data set.

3.   The method as recited in claim 1 wherein the second data set is from the same computing device that was the source of the first data set but from a different time.

4.   The method as recited in claim 2 wherein the at least one computing device is a server computer among a plurality of server computers.

5.   The method as recited in claim 2 wherein the data set comprises information indicative of at least one application resident on the at least one computing device.

6.   The method as recited in claim 2 wherein the data set comprises information indicative of at least one process executing on the at least one computing device.

7.   The method as recited in claim 5 wherein the act of displaying at least one difference between the first and second data set comprises displaying an indication of a

difference in the at least one application program in both the first data set and the second data set.

8.   The method as recited in claim 5 comprising installing a version of the at least one application on a second computing device.

9.   The method as recited in claim 8 comprising removing the at least one application from the at least one computing device.

10.   The method of claim 6 comprising installing a version of the at least one process on a second computer.

11.   The method as recited in claim 1 wherein the data set comprises information indicative of at least one database.

12.   The method as recited in claim 11 wherein the information indicative of the at least one database comprises column table information for tables in the at least one database.

13.   The method as recited in claim 12 comprising populating a database on a second computer with at least a portion of the table information from the at least one database.

14.   The method as recited in claim 1 wherein the act of sending the discovery agent to the at least one computing device comprises sending a remote procedure to the at least one computing device and remotely executing the remote procedure.

15.   The method as recited in claim 14 comprising receiving the at least one data set via named pipes.

16.   A method of consolidating services performed on a first and second computing device to a second computing device, comprising:

sending a discovery agent to the first computing device to determine a plurality of services provided by the first computing device;

receiving a first set of information indicative of the plurality of services provided by the first computing devices; and

comparing the first set of information to a second set of information indicative of a plurality of services performed by a second computing device to determine at least one service provided by the first computing device that is not available on the second computing device such that the at least one service is indicative of a service to be added to the second computing device in a consolidation.

17. The method as recited in claim 16 comprising changing the services performed by the second computing device to include the at least one service.

18. The method as recited in claim 16 wherein the discovery agent comprises computer executable instructions for determining the system characteristics on the first computing device.

19. The method as recited in claim 18 wherein the system characteristics comprise at least one of: the number of processors, available processors, processor level, devices, disk drive characteristics, disk drive capacity, system name, page size, operating system version, operating system build, and network connectivity.

20. The method as recited in claim 16 wherein the discovery agent comprises computer executable instructions for determining the executable process characteristics on the first computing device.

21. The method as recited in claim 20 wherein the process characteristics comprise at least one of: CPU utilization, memory utilization, active process, active process dependencies, processor usage, memory usage, process creation time, process ID, process owner, process handles, process version, dependency version, process timestamp, process description, and dependency description.

22. The method as recited in claim 16 where the agent is executed by way of a remote procedure call.

23. The method as recited in claim 16 wherein the agent communicates the data set by way of named pipes.

24. The method as recited in claim 17 wherein the services comprise an application service provided by the first computing device.

25. The method as recited in claim 17 wherein the service is a database service.

26. The method as recited in claim 16 wherein the discovery agent comprises computer executable instructions for determining the database characteristics on the first computing device.

27. The method as recited in claim 26 wherein the database characteristics comprise at least one of: roles, uses, aliases, defaults, rules, functions, user defined datatypes, user messages, tables, views, indexes, extended procedures, stored procedures, and triggers.

What is Claimed:

1. A method for consolidating computing devices, comprising:

    sending a discovery agent over a network connection to at least one computing device;

    receiving a first data set from said discovery agent indicative of characteristics of the at least one computing device; and

    displaying at least one difference between the first data set and a second data set whereby a computing device consolidation candidate can be identified.

2. The method as recited in claim 1 wherein the second data set is from a computing device other than the computing device that was the source of the first data set.

3. The method as recited in claim 1 wherein the second data set is from the same computing device that was the source of the first data set but from a different time.

4. The method as recited in claim 2 wherein the at least one computing device is a server computer among a plurality of server computers.

5. The method as recited in claim 2 wherein the data set comprises information indicative of at least one application resident on the at least one computing device.

6. The method as recited in claim 2 wherein the data set comprises information indicative of at least one process executing on the at least one computing device.

7. The method as recited in claim 5 wherein the act of displaying at least one difference between the first and second data set comprises displaying an indication of a difference in the at least one application program in both the first data set and the second data set.

8. The method as recited in claim 5 comprising installing a version of the at least one application on a second computing device.

9. The method as recited in claim 8 comprising removing the at least one application from the at least one computing device.

10. The method of claim 6 comprising installing a version of the at least one process on a second computer.

11. The method as recited in claim 1 wherein the data set comprises information indicative of at least one database.

12. The method as recited in claim 11 wherein the information indicative of the at least one database comprises column table information for tables in the at least one database.

13. The method as recited in claim 12 comprising populating a database on a second computer with at least a portion of the table information from the at least one database.

14. The method as recited in claim 1 wherein the act of sending the discovery agent to the at least one computing device comprises sending a remote procedure to the at least one computing device and remotely executing the remote procedure.

15. The method as recited in claim 14 comprising receiving the at least one data set via named pipes.

16. A method of consolidating services performed on a first and second computing device to a second computing device, comprising:

sending a discovery agent to the first computing device to determine a plurality of services provided by the first computing device;

receiving a first set of information indicative of the plurality of services provided by the first computing devices; and

comparing the first set of information to a second set of information indicative of a plurality of services performed by a second computing device to determine at least one service provided by the first computing device that is not available on the second computing device such that the at least oe service is indicative of a service to be added to the second computingdevice in a consolidation.

17. The method as recited in claim 16 comprising changing the services performed by the second computing device to include the at least one service.

18. The method as recited in claim 16 wherein the discovery agent comprises computer executable instructions for determining the system characteristics on the first computing device.

19. The method as recited in claim 18 wherein the system characteristics comprise at least one of: the number of processors, available processors, processor level, devices, disk drive characteristics, disk drive capacity, system name, page size, operating system version, operating system build, and network connectivity.

20. The method as recited in claim 16 wherein the discovery agent comprises computer executable instructions for determining the executable process characteristics on the first computing device.

21. The method as recited in claim 20 wherein the process characteristics comprise at least one of: CPU utilization, memory utilization, active processes, active process dependencies, processor usage, memory usage, process creation time, process ID, process owner, process handles, process version, dependency version, process timestamp, process description, and dependency description.

22. The method as recited in claim 16 where the agent is executed by way of a remote procedure call.

23. The method as recited in claim 16 wherein the agent communicates the data set by way of named pipes.

24. The method as recited in claim 17 wherein the services comprise an application service provided by the first computing device.

25. The method as recited in claim 17 wherein the service is a database service.

26. The method as recited in claim 16 wherein the discovery agent comprises computer executable instructions for determining the database characteristics on the first computing device.

27. The method as recited in claim 26 wherein the database characteristics comprise at least one of: roles, users, aliases, defaults, rules, functions, user defined datatypes, user messages, tables, views, indexes, extended procedures, stored procedures, and triggers.